

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method implemented by a computing platform hosting for an event analyzer, comprising:
 - providing presenting, by the computing platform, a plurality of virtual events supported by the computing platform for user selection, wherein the a selected virtual events are event is generated by a plurality of an associated platform components component on the computing platform when a predefined condition is met, the associated platform component being one of the following hardware components: a graphical device, a network component, an interconnect path, a main memory, and a display;
 - determining, by the associated platform component, whether an occurrence of the selected virtual event generated by the associated platform component is a sampled virtual event based on a configurable counter value;
 - generating, by the associated platform component, interrupting an interruption to execution of an instruction at a time a in response to a determination that the occurrence of the selected virtual event occurs is the sampled virtual event;
 - storing, by the computing platform, the interrupted instruction; and
analyzing the selected-sampled virtual event.
2. (Currently Amended) The method of claim 1 further comprising:
 - providing a driver interface to associate with each of the platform components the associated platform component, wherein the driver interface supplies a definition of the selected virtual events event generated by the associated platform component.
3. (Currently Amended) The method of claim 1 further comprising:
 - allocating a sampling buffer for the associated platform component generating the selected that generates the sampled virtual event to store the interrupted instruction.
4. (Original) The method of claim 1 further comprising:
 - providing a user interface to receive a user definition of the virtual events.

5. (Currently Amended) The method of claim 1 wherein analyzing the selected sampled virtual event comprises:

calculating a frequency of the selected-sampled virtual event occurring at a time an instruction module is executed.

6. (Original) The method of claim 1 wherein storing the interrupted instruction further comprises:

time-stamping the interrupted instruction.

7. (Currently Amended) The method of claim 1 further comprising:

assigning an interrupt vector to the selected virtual event, wherein the interrupt vector is accessed at a time when the occurrence of the selected virtual event ~~occurs~~ is determined to be the sampled virtual event.

8. (Original) The method of claim 1 further comprising:

reporting an analysis at a time the instruction execution reaches a user-specified time limit.

9. (Original) The method of claim 1 wherein storing the interrupted instruction further comprises:

storing information of an instruction module containing the interrupted instruction.

10. (Currently Amended) A system of an event analyzer comprising:

a processor to execute instructions;

a plurality of platform components sharing a platform with the processor, wherein each of the platform components is one of the following hardware components: a graphical device, a network component, an interconnect path, a main memory, and a display;

a plurality of virtual event provider drivers, each of the virtual event provider drivers being associated with one of the platform components to provide definitions for virtual events supported by the ~~associated~~ platform component; and

a virtual event provider manager to query the virtual event provider drivers about the supported virtual events, wherein the virtual event provider manager causes selected-sampled virtual events to be analyzed,

wherein, when an associated platform component, which is one of the platform components that generates a selected virtual event when a predefined condition is met, determines that an occurrence of the selected virtual event is a sampled virtual event based on a configurable counter value, the associated platform component generates an interruption to execution of the instructions.

11. (Currently Amended) The system of claim 10 further comprising:
a plurality of sampling buffers, each-one of the sampling buffers being assigned to each of the associated platform components that generate the selected~~generates the sampled~~ virtual events, ~~the sampling buffers storing to store~~ the instructions being interrupted-at-a-time the selected virtual events occur.

12. (Currently Amended) The system of claim 10 the virtual event provider manager and virtual event provider drivers further comprise:

a forwarding mechanism to forward-receive a user-specified value (V) as the configurable counter value and forward the configurable counter value user-specified configuration values to the associated platform ~~components~~component, wherein the user-specified value (V) indicates that one out of V occurrences of the selected virtual event is the sampled virtual event.

13. (Currently Amended) The system of claim 10 further comprising:
a report generator to generate a report that allows a user to identify the interrupted instructions being interrupted.

14. (Currently Amended) The system of claim 10 further comprising:
an event map table accessible by the virtual event provider manager to store a mapping between local indices of the support-supported virtual events and platform-wide event identifiers.

15. (Original) The system of claim 10 wherein the virtual event provider drivers respond to the query by sending an event identifier and an interrupt vector for each of the supported virtual events.

16. (Currently Amended) A non-transitory machine-readable medium having instructions therein which when executed cause a machine to:

present a plurality of virtual events supported by a computing platform for user selection,
wherein a selected virtual event is generated by an associated platform component on the
computing platform when a predefined condition is met, the associated platform component
being one of the following hardware components: a graphical device, a network component, an
interconnect path, a main memory, and a display;

receive, from the associated platform component, an interruption to execution of an
instruction when the associated platform component determines, based on a configurable counter
value, that an occurrence of the selected virtual event is a sampled virtual event~~provide a~~
~~plurality of virtual events supported by a platform for selection, wherein the virtual events are~~
~~generated by a plurality of platform components;~~

~~interrupt execution of an instruction at a time a selected virtual event occurs;~~

~~cause the interrupted instruction to be stored; and~~

~~cause the selected sampled virtual event to be analyzed.~~

17. (Currently Amended) The machine-readable medium of claim 16 further comprising instructions operable to:

allocate a sampling buffer for the associated platform component ~~generating the~~
~~selected~~that generates the sampled virtual event to store the interrupted instruction.

18. (Currently Amended) The machine-readable medium of claim 16 wherein interrupting execution of an instruction further comprises instructions operable to:

receive a user-specified value (V) as the configurable counter value and forward the
configurable counter value to the associated platform component, wherein the user-specified
value (V) indicates that one out of V occurrences of the selected virtual event is the sampled
virtual event~~interrupt the execution at a pre-determined sampling rate.~~

19. (Currently Amended) The machine-readable medium of claim 16 wherein causing the selected virtual event to be analyzed further comprises instructions operable to:

calculate a frequency of the ~~selected~~sampled virtual event occurring at a time an instruction module is executed.

20. (Original) The machine-readable medium of claim 16 wherein causing the interrupted instruction to be stored further comprises instructions operable to:

time-stamp the stored interrupted instruction.

21. (Original) The machine-readable medium of claim 16 further comprising instructions operable to:

assign an interrupt vector to the selected virtual event, wherein the interrupt vector is accessed at a time the selected virtual event occurs.

22. (Original) The machine-readable medium of claim 16 wherein causing the interrupted instruction to be stored further comprises instructions operable to:

store information of an instruction module containing the interrupted instruction.